## (19) World Intellectual Property Organization International Bureau





#### (43) International Publication Date 9 December 2004 (09.12.2004)

### **PCT**

## (10) International Publication Number WO 2004/107089 A3

(51) International Patent Classification7: 12/46, 29/06

H04L 12/26,

(21) International Application Number:

PCT/KR2004/001148

(22) International Filing Date: 14 May 2004 (14.05.2004)

(25) Filing Language:

Korean

(26) Publication Language:

English

(30) Priority Data: 10-2003-0034962 30 May 2003 (30.05.2003) KR 10-2004-0022185 31 March 2004 (31.03.2004)

(71) Applicant (for all designated States except US): LG ELECTRONICS, INC. [KR/KR]; 20, Yoido-Dong, Yongdungpo-Ku, Seoul 150-010 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): HA, Sam-Chul [KR/KR]; Sapa-Dongsung Apt. 102-1201, Sapa-Dong, Changwon-Shi, Kyungsangnam-Do 641-550 (KR).

Banlim-Dong, Kyungsangnam-Do Changwon-Shi, 641-764 (KR). LEE, Koon-Seok [KR/KR]; Sungwon Apt. 102-1406, 45-1 Sangnam-Dong, Changwon-Shi, Kyungsangnam-Do 641-778 (KR). KIM, Yong-Tae [KR/KR]; Daedong Apt. 1006-1504, Mukea-Ri, Jangyou-Myun, Gimhae-Shi, Kyungsangnam-Do 621-833 (KR).

(74) Agent: LEE, Kwang-Yeon; LEE & KIM, 5th Floor, New-Seoul Bldg., 828-8, Yoksam 1-Dong, Kangnam-Ku, Seoul 135-935 (KR).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,

APPLICATION SOFTWARE	MESSAGE
APPLICATION LAYER	APDU HEADER MESSAGE
NETWORK LAYER	NPDU HEADER APDU NPDU TRAILER
HOME CODE CONTROL SUB-LAYER	HOME CODE NPDU
DATA LINK LAYER	FRAME HEADER HCNPDU FRAME TRAILER
PHYSICAL LAYER	

unit (NPDU) is transmitted between the network layer and the data link layer and the between the network layer and the home code control sub-layer, a home code control sub-layer protocol data unit (HCNPDU) is transmitted between the home code control sub-layer and the data link layer, and a data frame unit is transmitted between the data link layer and the physical layer.

..

÷

# WO 2004/107089 A3



European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

# (88) Date of publication of the international search report: 16 June 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

# INTERNATIONAL SEARCH REPORT

International application No. PCT/KR 2004/001148

			PCT/KR	2004/001148			
A. CLASSIFICATION OF SUBJECT MATTER IPC <sup>7</sup> : H04L 12/26, 12/46, 29/06 According to International Patent Classification (IPC) or to both national classification and IPC							
	SEARCHED						
Minimum do IPC <sup>7</sup> : H04	cumentation searched (classification system follow	ed by classification symbols)					
Documentati	on searched other than minimum documentation to	the extent that such document	s are included	in the fields searched			
Electronic da WPI, EPC	ta base consulted during the international search (na DDOC, PAJ, Elsevier, IEE, I3E, IEEEX	ame of data base and, where polore	racticable, sea	rch terms used)			
C. DOCUMENTS CONSIDERED TO BE RELEVANT							
Category*	Citation of document, with indication, where	appropriate, of the relevant pa	ssages	Relevant to claim No.			
х	Koon-Seok Lee, Hoan-Jong Choi, Cl Baek,'A new control protocol for hom International Symposium on Industria Proceedings. ISIE 2001. 12-16 June volume 1	ne appliances-LnCP.' In al Electronics, 2001.	n:	1-54			
Α	Yi-Min Wang; Russel, W.; Arora, A.; 'Towards dependable home networki Proceedings International Conference and Networks, 2000. DSN 200025 - 2 CA, USA, IEEE Computer Society pages.	ing: an experience rep e on Dependable Syst 28 June 2000. Los Ala	ort.' In:	1-54			
		•					
Further documents are listed in the continuation of Box C.							
"A" document to be of pa earlier app filing date "L" document cited to expecial rea: "O" document means "P" document doc	tegories of cited documents:  defining the general state of the art which is not consider  riticular relevance  lication or patent but published on or after the internation  which may throw doubts on priority claim(s) or which  stablish the publication date of another citation or oth  son (as specified)  referring to an oral disclosure, use, exhibition or oth  published prior to the international filing date but later the  date claimed	pronty date and no to understand the pri al "X" document of partic cannot be considered is an inventive step wh er "Y" document of partic cannot be considere document is comi	t in conflict wit neiple or theory cular relevance if novel or canno en the documen cular relevance d to involve an intendigent with on combination bei	ot be considered to involve that is taken alone i; the claimed invention inventive step when the lie or more other such ing obvious to a person			
Date of the act	tual completion of the international search 4 March 2005 (24.03.2005)	Date of mailing of the inter		h report			
	ling address of the ISA/AT  Austrian Patent Office  dner Straße 87, A-1200 Vienna	Authorized officer ENG	GLISCH M				
	+43 / 1 / 534 24 / 535	Telephone No. +43 / 1 /	534 24 / 5	65			

## INTERNATIONAL SEARCH REPORT

International application No.
PCT/KR 2004/001148

Patent document cited in search report	Publication date	Patent family member(s)	Publication date